

AMENDMENTS TO THE CLAIMS:

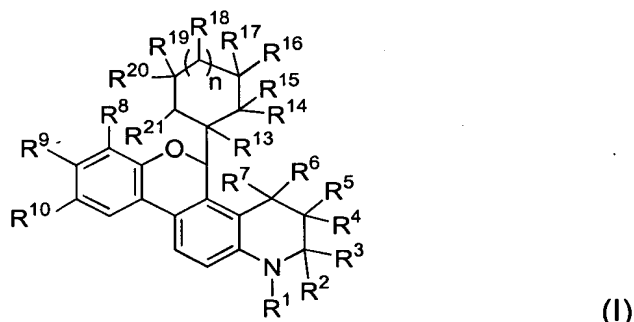
Claims 2-16, 18-28 and 30-47 are pending in this application. Claims 1, 17 and 29 are cancelled herein without prejudice or disclaimer. Claims 2-6, 8-13, 18-22, 24-28, 30, 33-35, 41 and 43 are amended herein. New claims 44-47 are added herein. This listing of claims will replace all prior versions, and listings of claims, in the application.

LISTING OF CLAIMS:

1. (Cancelled).
2. (Currently amended) A compound according to ~~claim 4~~ any one of claims 44, 45 or 46, wherein R¹ is selected from the group of hydrogen, C₁-C₄ alkyl, COR¹¹, SO₂R¹¹, and CONR¹¹R¹².
3. (Currently amended) A compound according to ~~claim 4~~ any one of claims 44, 45 or 46, wherein R² and R³ each independently is selected from the group of C₁-C₄ alkyl, and C₁-C₄ haloalkyl.
4. (Currently amended) A compound according to ~~claim 4~~ any one of claims 44, 45 or 46, wherein:
R⁵ and R⁷ taken together form a bond;
R⁴ and R⁶ each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C₁-C₄ alkyl, and C₁-C₄ haloalkyl.
5. (Currently amended) A compound according to ~~claim 4~~ any one of claims 44, 45 or 46, wherein:
R⁶ and R⁷ taken together are selected from the group of methyldiene, and carbonyl;
R⁴ and R⁵ each independently is selected from the group of hydrogen, F, and C₁-C₄ alkyl.
6. (Currently amended) A compound according to ~~claim 4~~ any one of claims 44, 45 or 46, wherein R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, NO₂, CN, OR¹¹, SR¹¹, C₁-C₆ alkyl, C₁-C₆ heteroalkyl, and C₁-C₆ haloalkyl.
7. (Original) A compound according to claim 6, wherein R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, and OR¹¹.

8. (Currently amended) A compound according to ~~claim 1~~ any one of claims 44, 45 or 46, wherein R¹¹ through R¹² each independently is selected from the group of hydrogen, and C₁–C₄ alkyl.

9. (Currently amended) A compound ~~according to claim 1~~, wherein of the formula:



wherein:

R¹ is selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ haloalkyl, C₁–C₄ heteroalkyl, COR¹¹, CO₂R¹¹, SO₂R¹¹, and CONR¹¹R¹².

R² and R³ each independently is selected from the group of hydrogen, C₁–C₆ alkyl, and C₁–C₆ haloalkyl; or

R² and R³ taken together form a cycloalkyl ring of from three to twelve carbons;

R⁴ through R⁷ each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

R⁵ and R⁷ taken together form a bond; or

R⁶ and R⁷ taken together are selected from the group of methylenide, mono-substituted methylenide, di-substituted methylenide and carbonyl;

R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, I, NO₂, CN, OR¹¹, NR¹¹R¹², SR¹¹, COR¹¹, CO₂R¹¹, CONR¹¹R¹², C₁–C₈ alkyl, C₁–C₈ heteroalkyl, C₁–C₈ haloalkyl, allyl, C₂–C₈ alkenyl and C₂–C₈ alkynyl;

R¹¹ and R¹² each is independently selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ heteroalkyl, and C₁–C₄ haloalkyl;

R¹³ is hydrogen;

R¹⁴ and R¹⁶ taken together form a bond or “–O–” bridge;

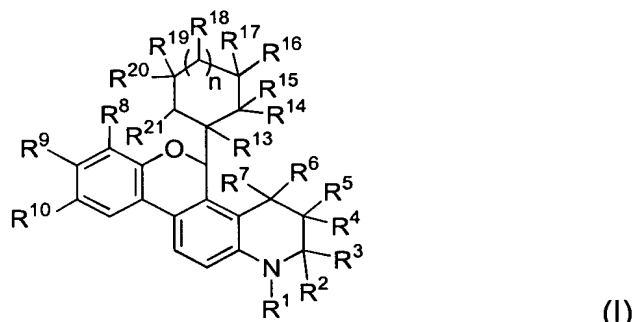
R¹⁵, R¹⁷, R¹⁸, R¹⁹, R²⁰ each independently is selected from the group of hydrogen, F, Cl, C₁–C₄ alkyl, and C₁–C₄ haloalkyl.

R²¹ is hydrogen; and

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

10. (Currently amended) A compound according to claim 1, wherein
of the formula:



wherein:

R¹ is selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ haloalkyl, C₁–C₄ heteroalkyl, COR¹¹, CO₂R¹¹, SO₂R¹¹, and CONR¹¹R¹².

R² and R³ each independently is selected from the group of hydrogen, C₁–C₆ alkyl, and C₁–C₆ haloalkyl; or

R² and R³ taken together form a cycloalkyl ring of from three to twelve carbons;

R⁴ through R⁷ each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

R⁵ and R⁷ taken together form a bond; or

R⁶ and R⁷ taken together are selected from the group of methyldene, mono-substituted methyldene, di-substituted methyldene and carbonyl;

R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, I, NO₂, CN, OR¹¹, NR¹¹R¹², SR¹¹, COR¹¹, CO₂R¹¹, CONR¹¹R¹², C₁–C₈ alkyl, C₁–C₈ heteroalkyl, C₁–C₈ haloalkyl, allyl, C₂–C₈ alkenyl and C₂–C₈ alkynyl;

R¹¹ and R¹² each is independently selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ heteroalkyl, and C₁–C₄ haloalkyl;

R¹³ is hydrogen;

R¹⁴, R¹⁵, R¹⁸, R¹⁹, R²⁰ each independently is selected from the group of hydrogen, F, Cl, C₁–C₄ alkyl, and C₁–C₄ haloalkyl.

R^{16} and R^{17} taken together are selected from the group of methyldiene, mono-substituted methyldiene, and di-substituted methyldiene;

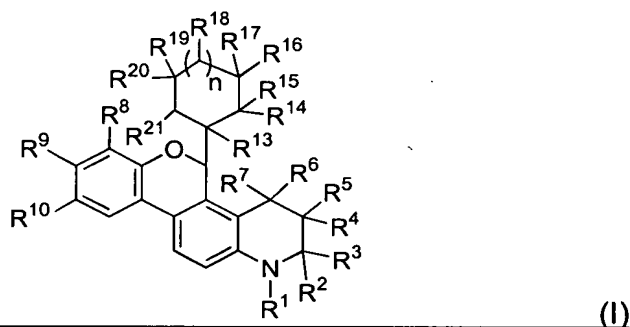
R^{21} is hydrogen; or

R^{21} and R^{20} taken together form a bond;

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

11. (Currently amended) A compound according to claim 1, wherein
of the formula:



wherein:

R^1 is selected from the group of hydrogen, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 heteroalkyl, COR^{11} , CO_2R^{11} , SO_2R^{11} , and $CONR^{11}R^{12}$;

R^2 and R^3 each independently is selected from the group of hydrogen, C_1 - C_6 alkyl, and C_1 - C_6 haloalkyl; or

R^2 and R^3 taken together form a cycloalkyl ring of from three to twelve carbons;

R^4 through R^7 each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR^{11} , C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, and C_1 - C_4 heteroalkyl; or

R^5 and R^7 taken together form a bond; or

R^6 and R^7 taken together are selected from the group of methyldiene, mono-substituted methyldiene, di-substituted methyldiene and carbonyl;

R^8 through R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, I, NO_2 , CN, OR^{11} , $NR^{11}R^{12}$, SR^{11} , COR^{11} , CO_2R^{11} , $CONR^{11}R^{12}$, C_1 - C_8 alkyl, C_1 - C_8 heteroalkyl, C_1 - C_8 haloalkyl, allyl, C_2 - C_8 alkenyl and C_2 - C_8 alkynyl;

R^{11} and R^{12} each is independently selected from the group of hydrogen, C_1 - C_4 alkyl, C_1 - C_4 heteroalkyl, and C_1 - C_4 haloalkyl;

R^{13} is hydrogen;

R^{14} , R^{15} , R^{17} , R^{20} each independently is selected from the group of hydrogen, F, Cl, C_1-C_4 alkyl, and C_1-C_4 haloalkyl R^{16} and R^{18} taken together form a bond when n is 1;

R^{16} and R^{19} taken together form a bond when n is 0;

R^{21} is hydrogen; and

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

12. (Currently amended) A compound ~~according to claim 1, wherein said compound is~~ selected from the group of:

(\pm)-(5*l*, 1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **24**);

(\pm)-(5*l*, 1'*u*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **25**);

(+)-(5*l*, 1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **27**);

(-)-(5*l*, 1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **28**);

(\pm)-(5*l*, 1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-hydroxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **29**);

(\pm)-(5*l*, 1'*u*)-5-(3-methyl-2-cyclohexenyl)-9-hydroxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **30**);

(+)-(5*l*, 1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-hydroxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **32**);

(-)-(5*l*, 1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-hydroxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **33**);

(\pm)-(5*l*, 1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **34**);

(\pm)-(5*l*, 1'*u*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **35**);

(+)-(5*l*, 1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **37**);

(-)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **38**);

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-methoxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **39**);

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2-dimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **41**);

(±)-(5*l*,1'*u*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2-dimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **42**);

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclopentenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **44**);

(±)-(5*l*,1'*u*)-5-(3-methyl-2-cyclopentenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **45**);

(±)-(5*l*,1'*l*)-5-(3,5,5-trimethyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **47**);

(±)-(5*l*,1'*u*)-5-(3,5,5-trimethyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **48**);

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **50**);

(±)-(5*l*,1'*u*)-5-(3-methyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **51**);

(±)-5-(3-methyl-3-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **52**);

(±)-5-(2-cyclopenta-1,3-dienyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **53**);

(±)-(5*l*,1'*l*)-5-(3-ethyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **55**);

(±)-(5*l*,1'*u*)-5-(3-ethyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **56**);

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-7-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **58**);

(±)-(5*l*,1'*u*)-5-(3-methyl-2-cyclohexenyl)-7-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **59**);

(±)-(5*l*,1'*l*)-5-(3-ethyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **61**);

(±)-(5*l*,1'*l*)-5-(3-ethylidenecyclohexyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **62**);

(±)-(5*l*,1'*l*)-5-(3-methyl-3-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **63**);

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-8-methoxy-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **64**);

(±)-(5*l*,1'*u*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-8-methoxy-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **65**);

(±)-(5*l*,1'*l*)-5-(2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **67**);

(±)-(5*l*,1'*u*)-5-(2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **68**);

(±)-5-(1-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **69**);

(±)-(5*l*,1'*l*)-5-(2,3-dimethyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **71**);

(+)-(5*l*,1'*l*)-5-(2,3-dimethyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **73**);

(-)-(5*l*,1'*l*)-5-(2,3-dimethyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **74**);

(±)-(5*l*,1'*l*)-5-(2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **75**);

(±)-(5*l*,1'*u*)-5-(2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **76**);

(±)-(5*l*,1'*l*)-5-(2-cyclohexenyl)-7,9-difluoro-1,2,3,4-tetrahydro-2,2-dimethyl-4-methylidene-5*H*-chromeno[3,4-*f*]quinoline (compound **77**);

(±)-(5*l*,1'*l*)-5-(2-methylidenecyclohexyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **79**);

(±)-(5*l*,1'*u*)-5-(2-methylidenecyclohexyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **80**);

(±)-(5*l*,1'*l*)-5-(2-oxocyclohexyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **81**);

(±)-(5*l*,1'*u*)-5-(2-oxocyclohexyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **82**);

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-methoxy-1,2-dihydro-1,2,2,4-tetramethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **83**);

(±)-5-(2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **84**);

(±)-(5*l*,1'*l*)-5-(2,3-dimethyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **85**);

(±)-5-(3-methylidene-cyclohexyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **87**);

(±)-(5*l*,1'*u*)-5-(3-ethylidenecyclohexyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **88**);

(±)-(5*l*,1'*l*)-5-(2-cycloheptenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (Compound **89**);

(±)-(5*l*,1'*l*)-5-(2-cyclooctenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (Compound **91**);

(±)-(5*l*,1'*u*)-5-(2-cyclooctenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (Compound **92**);

(±)-(5*l*,1'*l*)-5-(2,3-epoxy-3-methylcyclohexyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (Compound **94**);

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2,3,4-tetrahydro-2,2-dimethyl-4-methylene-5*H*-chromeno[3,4-*f*]quinolin-3-ol (Compound **95**);

(±)-(5*l*,1'*l*)-5-(2,3-epoxy-2,3-dimethylcyclopentyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (Compound **96**);

(±)-(5*l*,1'*u*)-5-(2,3-epoxy-3-methylcyclohexyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (Compound **97**); and

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2,3,4-tetrahydro-2,2-dimethyl-5*H*-chromeno[3,4-*f*]quinolin-4-one (Compound **98**).

13. (Currently amended) A compound according to claim 1, wherein said compound is selected from the group of:

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **24**);

(-)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **28**);

(-)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-hydroxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **33**);

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **34**);

(±)-(5*l*,1'*u*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **35**);

(-)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **38**);

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **50**);

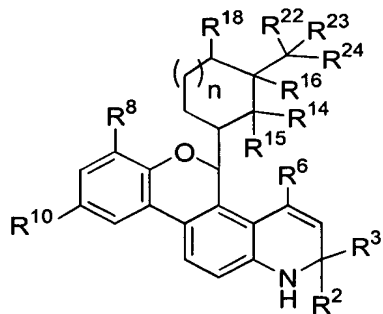
(±)-(5*l*,1'*u*)-5-(3-methyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **51**);

(±)-(5*l*,1'*l*)-5-(2,3-dimethyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **71**);

(-)-(5*l*,1'*l*)-5-(2,3-dimethyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **74**); and

(±)-(5*l*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2,3,4-tetrahydro-2,2-dimethyl-5*H*-chromeno[3,4-*f*]quinolin-4-one (Compound **98**).

14. (Original) A compound of the formula:



(II)

wherein:

R^2 and R^3 each independently is selected from the group of hydrogen, C_1-C_4 alkyl, and C_1-C_4 haloalkyl;

R^6 is selected from the group of hydrogen, F, Cl, Br, CN, OR^{11} , C_1-C_4 alkyl, and C_1-C_4 haloalkyl;

R^8 and R^{10} each independently is selected from the group consisting of hydrogen, F, Cl, Br, CN, OR^{11} , $NR^{11}R^{12}$, SR^{11} , COR^{11} , C_1-C_4 alkyl, C_1-C_4 heteroalkyl, C_1-C_4 haloalkyl, allyl, and C_2-C_4 alkenyl;

R^{11} and R^{12} each is independently selected from the group of hydrogen, C_1-C_4 alkyl, C_1-C_4 heteroalkyl, and C_1-C_4 haloalkyl;

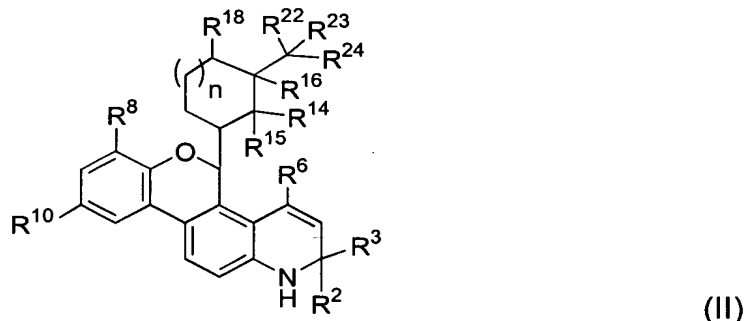
R^{14} , R^{15} , R^{18} , R^{22} , R^{23} , R^{24} each independently is selected from the group of hydrogen, F, Cl, OR^{11} , C_1-C_4 alkyl, C_1-C_4 haloalkyl, and C_1-C_4 heteroalkyl;

R^{22} , R^{23} , R^{24} together consists of not more than 3 carbon atoms;

R^{16} taken together with one of R^{14} , R^{18} , and R^{22} form a bond or “-O-” bridge;
 n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

15. (Original) A compound according to claim 14, wherein of the formula:



wherein:

R^2 and R^3 each independently is selected from the group of C_1-C_4 alkyl;

R^6 is selected from the group of F, Cl, Br, C_1-C_4 alkyl, and C_1-C_4 haloalkyl;

R^8 and R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR^{11} , C_1-C_4 alkyl, and C_1-C_4 haloalkyl;

R^{11} and R^{12} each is independently selected from the group of hydrogen, C_1-C_4 alkyl;

R^{14} , R^{15} , R^{18} , R^{22} , R^{23} , R^{24} each independently is selected from the group of hydrogen, F, C_1-C_4 alkyl;

R^{16} taken together with one of R^{14} , R^{18} , and R^{22} form a bond or “—O—” bridge;
 R^{22} , R^{23} , R^{24} together consists of not more than 3 carbon atoms; and

n is 0, 1, or 2;

or a pharmaceutically acceptable salt or prodrug thereof.

16. (Original) A compound according to claim 15, wherein

R^2 and R^3 each independently is CH_3 ;

R^6 is selected from the group of F, Cl, Br, CH_3 , CH_2CH_3 , and CF_3 ;

R^8 is hydrogen or F;

R^{10} is selected from the group of hydrogen, F, Cl, Br, CN, OH, OCH_3 , CH_3 , CH_2CH_3 , and CF_3 ;

R^{14} and R^{16} taken together form a bond or “—O—” bridge;

R^{15} , R^{18} , R^{22} , R^{23} , and R^{24} each independently is hydrogen or CH_3 .

17. (Cancelled).

18. (Currently amended) A pharmaceutical composition according to ~~claim~~
47 any one of claims 47, 48 or 49, wherein R^1 is selected from the group of
hydrogen, C_1 – C_4 alkyl, COR^{11} , SO_2R^{11} , and $CONR^{11}R^{12}$.

19. (Currently amended) A pharmaceutical composition according to ~~claim~~
47 any one of claims 47, 48 or 49, wherein R^2 and R^3 each independently is selected
from the group of C_1 – C_4 alkyl, and C_1 – C_4 haloalkyl.

20. (Currently amended) A pharmaceutical composition according to ~~claim~~
47 any one of claims 47, 48 or 49, wherein

R^5 and R^7 taken together form a bond;

R^4 and R^6 each independently is selected from the group of hydrogen, F, Cl,
Br, CN, OR^{11} , C_1 – C_4 alkyl, and C_1 – C_4 haloalkyl.

21. (Currently amended) A pharmaceutical composition according to ~~claim~~
47 any one of claims 47, 48 or 49, wherein

R^6 and R^7 taken together are selected from the group of methylenedioxy, and
carbonyl;

R^4 and R^5 each independently is selected from the group of hydrogen, F, and
 C_1 – C_4 alkyl.

22. (Currently amended) A pharmaceutical composition according to ~~claim~~
47 any one of claims 47, 48 or 49, wherein R^8 through R^{10} each independently is

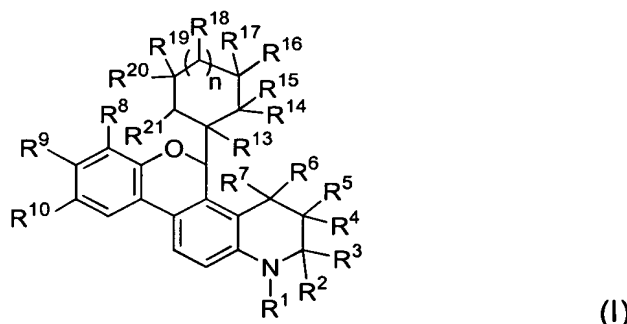
selected from the group of hydrogen, F, Cl, Br, NO₂, CN, OR¹¹, SR¹¹, C₁–C₆ alkyl, C₁–C₆ heteroalkyl, and C₁–C₆ haloalkyl.

23. (Original) A pharmaceutical composition according to claim 22, wherein R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, and OR¹¹.

24. (Currently amended) A pharmaceutical composition according to claim 47 any one of claims 47, 48 or 49, wherein R¹¹ through R¹² each independently is selected from the group of hydrogen, and C₁–C₄ alkyl.

25. (Currently amended) A pharmaceutical ~~composition according to claim 17, wherein~~

composition, comprising a pharmaceutically acceptable carrier and a compound of formula:



wherein:

R¹ is selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ haloalkyl, C₁–C₄ heteroalkyl, COR¹¹, CO₂R¹¹, SO₂R¹¹, and CONR¹¹R¹².

R² and R³ each independently is selected from the group of hydrogen, C₁–C₆ alkyl, and C₁–C₆ haloalkyl; or

R² and R³ taken together form a cycloalkyl ring of from three to twelve carbons;

R⁴ through R⁷ each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

R⁵ and R⁷ taken together form a bond; or

R⁶ and R⁷ taken together are selected from the group of methyldiene, mono-substituted methyldiene, di-substituted methyldiene and carbonyl;

R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, I, NO₂, CN, OR¹¹, NR¹¹R¹², SR¹¹, COR¹¹, CO₂R¹¹, CONR¹¹R¹², C₁–C₈ alkyl, C₁–C₈ heteroalkyl, C₁–C₈ haloalkyl, allyl, C₂–C₈ alkenyl and C₂–C₈ alkynyl;

R¹¹ and R¹² each is independently selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ heteroalkyl, and C₁–C₄ haloalkyl;

R¹³ is hydrogen;

R¹⁴ and R¹⁶ taken together form a bond or “–O–” bridge;

R¹⁵, R¹⁷, R¹⁸, R¹⁹, R²⁰ each independently is selected from the group of hydrogen, F, Cl, C₁–C₄ alkyl, and C₁–C₄ haloalkyl;

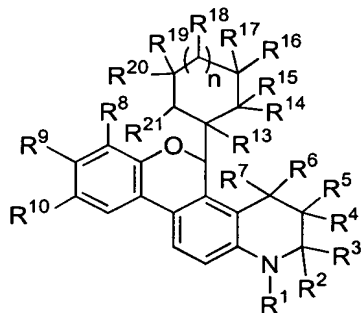
R²¹ is hydrogen; or

R²¹ and R²⁰ taken together form a bond; and

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

26. (Currently amended) A pharmaceutical composition according to claim 17, wherein composition, comprising a pharmaceutically acceptable carrier and a compound of formula:



(I)

wherein:

R¹ is selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ haloalkyl, C₁–C₄ heteroalkyl, COR¹¹, CO₂R¹¹, SO₂R¹¹, and CONR¹¹R¹²;

R² and R³ each independently is selected from the group of hydrogen, C₁–C₆ alkyl, and C₁–C₆ haloalkyl; or

R² and R³ taken together form a cycloalkyl ring of from three to twelve carbons;

R⁴ through R⁷ each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

R⁵ and R⁷ taken together form a bond; or

R⁶ and R⁷ taken together are selected from the group of methyldiene, mono-substituted methyldiene, di-substituted methyldiene and carbonyl;

R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, I, NO₂, CN, OR¹¹, NR¹¹R¹², SR¹¹, COR¹¹, CO₂R¹¹, CONR¹¹R¹², C₁–C₈ alkyl, C₁–C₈ heteroalkyl, C₁–C₈ haloalkyl, allyl, C₂–C₈ alkenyl and C₂–C₈ alkynyl;

R¹¹ and R¹² each is independently selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ heteroalkyl, and C₁–C₄ haloalkyl;

R¹³ is hydrogen;

R¹⁴, R¹⁵, R¹⁸, R¹⁹, R²⁰ each independently is selected from the group of hydrogen, F, Cl, C₁–C₄ alkyl, and C₁–C₄ haloalkyl;

R¹⁶ and R¹⁷ taken together are selected from the group of methyldiene, mono-substituted methyldiene, and di-substituted methyldiene;

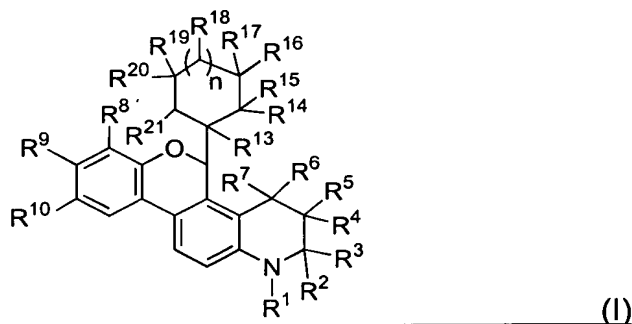
R²¹ is hydrogen; or

R²¹ and R²⁰ taken together form a bond; and

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

27. (Currently amended) A pharmaceutical composition according to claim 17, wherein composition, comprising a pharmaceutically acceptable carrier and a compound of formula:



wherein:

R¹ is selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ haloalkyl, C₁–C₄ heteroalkyl, COR¹¹, CO₂R¹¹, SO₂R¹¹, and CONR¹¹R¹²;

R² and R³ each independently is selected from the group of hydrogen, C₁–C₆ alkyl, and C₁–C₆ haloalkyl; or

R² and R³ taken together form a cycloalkyl ring of from three to twelve carbons;

R⁴ through R⁷ each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

R⁵ and R⁷ taken together form a bond; or

R⁶ and R⁷ taken together are selected from the group of methyldiene, mono-substituted methyldiene, di-substituted methyldiene and carbonyl;

R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, I, NO₂, CN, OR¹¹, NR¹¹R¹², SR¹¹, COR¹¹, CO₂R¹¹, CONR¹¹R¹², C₁–C₈ alkyl, C₁–C₈ heteroalkyl, C₁–C₈ haloalkyl, allyl, C₂–C₈ alkenyl and C₂–C₈ alkynyl;

R¹¹ and R¹² each is independently selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ heteroalkyl, and C₁–C₄ haloalkyl;

R¹³ is hydrogen;

R¹⁴, R¹⁵, R¹⁷, R²⁰ each independently is selected from the group of hydrogen, F, Cl, C₁–C₄ alkyl, and C₁–C₄ haloalkyl;

R¹⁶ and R¹⁸ taken together form a bond when n is 1; or

R¹⁶ and R¹⁹ taken together form a bond when n is 0;

R²¹ is hydrogen; and

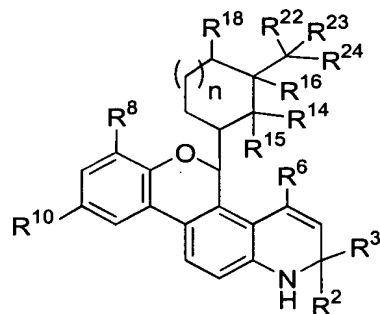
n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

28. (Currently amended) A method of treating an individual having a condition mediated by a progesterone ~~receptor~~ receptor, comprising administering to said individual a pharmaceutically effective amount of a compound according to any one of claims 4 44, 45, 46, 12 or 14 and thereby treating said individual having a condition mediated by a progesterone receptor.

29. (Cancelled).

30. (Currently amended) A method of treating an individual having a condition mediated by a progesterone ~~receptor~~ receptor, comprising administering to said individual a pharmaceutically effective amount of a compound represented by formula (II):



(II)

wherein:

R^2 and R^3 each independently is selected from the group of hydrogen, C_1 – C_4 alkyl, and C_1 – C_4 haloalkyl;

R^6 is selected from the group of hydrogen, F, Cl, Br, CN, OR^{11} , C_1 – C_4 alkyl, and C_1 – C_4 haloalkyl;

R^8 and R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR^{11} , $NR^{11}R^{12}$, SR^{11} , COR^{11} , C_1 – C_4 alkyl, C_1 – C_4 heteroalkyl, C_1 – C_4 haloalkyl, allyl, and C_2 – C_4 alkenyl;

R^{11} and R^{12} each is independently selected from the group of hydrogen, C_1 – C_4 alkyl, C_1 – C_4 heteroalkyl, and C_1 – C_4 haloalkyl;

R^{14} , R^{15} , R^{18} , R^{22} , R^{23} , R^{24} each independently is selected from the group of hydrogen, F, Cl, OR^{11} , C_1 – C_4 alkyl, C_1 – C_4 haloalkyl, and C_1 – C_4 heteroalkyl;

R^{22} , R^{23} , R^{24} together consists of not more than 3 carbon atoms;

R^{16} taken together with one of R^{14} , R^{18} , and R^{22} form a bond or “–O–” bridge;

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof;

and thereby treating said individual having a condition mediated by a progesterone receptor.

31. (Original) A method according to claim 28, wherein said condition is selected from the group of dysfunctional uterine bleeding, dysmenorrhea, endometriosis, leiomyomas (uterine fibroids), hot flushes, mood disorders, meningiomas, hormone-dependent cancers and female osteoporosis.

32. (Original) A method according to claim 28, wherein said condition is alleviated with female hormone replacement therapy.

33. (Currently amended) A method of modulating fertility in an ~~individual~~ individual, comprising administering to said individual a pharmaceutically effective amount of a compound according to any one of claims 4 44, 45, 46, 12 or 14 and thereby modulating fertility in said individual.

34. (Currently amended) A method of providing contraception to an ~~individual~~ individual, comprising administering to said individual a pharmaceutically effective amount of a compound according to any one of claims 4 44, 45, 46, 12 or 14 and thereby providing contraception to said individual.

35. (Currently amended) A method of modulating a progesterone receptor in an ~~individual~~ individual, comprising administering to said individual a compound according to any one of claims 4 44, 45, 46, 12, or 14 in an amount effective to modulate a progesterone receptor and thereby modulating a progesterone receptor in said individual.

36. (Original) A method according to claim 35, wherein said modulation is activation.

37. (Original) A method according to claim 36, wherein said compound provides at least 50% maximal activation of the progesterone receptor at a concentration of less than 100 nM.

38. (Original) A method according to claim 36, wherein said compound provides at least 50% maximal activation of the progesterone receptor at a concentration of less than 50 nM.

39. (Original) A method according to claim 36, wherein said compound provides at least 50% maximal activation of the progesterone receptor at a concentration of less than 20 nM.

40. (Original) A method according to claim 36, wherein said compound provides at least 50% maximal activation of the progesterone receptor at a concentration of less than 10 nM.

41. (Currently amended) A method of treating hormone-dependent cancer, comprising administering to a patient in need thereof an effective amount of a compound according to any one of claims 4 44, 45, 46, 12 or 14.

42. (Original) A method according to claim 41, wherein said cancer is selected from the group of ovarian cancer, breast cancer, endometrium cancer and prostate cancer.

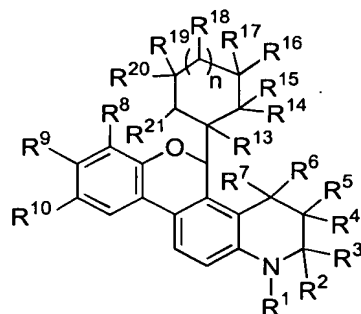
43. (Currently amended) A method of determining the presence of a progesterone receptor (PR) in a cell or cell ~~extract~~ extract, comprising:

(a) labeling a compound ~~according to~~ of any one of claims 4 44, 45, 46, 12 or 14;

(b) contacting the cell or cell extract with ~~said~~ the labeled compound; and

(c) testing the ~~contracted~~ contacted cell or cell extract to ~~determine the presence of progesterone receptor~~ detect label and thereby determining the presence of a progesterone receptor (PR) in the cell or cell extract.

44. (New) A compound of the formula:



(I)

wherein:

R¹ is selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ haloalkyl, C₁–C₄ heteroalkyl, COR¹¹, CO₂R¹¹, SO₂R¹¹, and CONR¹¹R¹²;

R² and R³ each independently is selected from the group of hydrogen, C₁–C₆ alkyl, and C₁–C₆ haloalkyl; or

R² and R³ taken together form a cycloalkyl ring of from three to twelve carbons;

R⁴ through R⁷ each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

R⁵ and R⁷ taken together form a bond; or

R⁶ and R⁷ taken together are selected from the group of methyldene, mono-substituted methyldene, di-substituted methyldene and carbonyl;

R^8 through R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, I, NO_2 , CN, OR^{11} , $\text{NR}^{11}\text{R}^{12}$, SR^{11} , COR^{11} , CO_2R^{11} , $\text{CONR}^{11}\text{R}^{12}$, $\text{C}_1\text{--C}_8$ alkyl, $\text{C}_1\text{--C}_8$ heteroalkyl, $\text{C}_1\text{--C}_8$ haloalkyl, allyl, $\text{C}_2\text{--C}_8$ alkenyl and $\text{C}_2\text{--C}_8$ alkynyl;

R^{11} and R^{12} each is independently selected from the group of hydrogen, $\text{C}_1\text{--C}_4$ alkyl, $\text{C}_1\text{--C}_4$ heteroalkyl, and $\text{C}_1\text{--C}_4$ haloalkyl;

R^{13} is hydrogen;

R^{14} through R^{20} each independently is selected from the group of hydrogen, F, Cl, Br, OR^{11} , $\text{C}_1\text{--C}_4$ alkyl, $\text{C}_1\text{--C}_4$ haloalkyl, and $\text{C}_1\text{--C}_4$ heteroalkyl; or

R^{14} and R^{15} taken together are selected from the group of methyldiene, carbonyl and thiocarbonyl; or

R^{16} and R^{17} taken together are selected from the group of methyldiene, mono-substituted methyldiene, di-substituted methyldiene, carbonyl and thiocarbonyl; or

R^{14} and R^{16} taken together form a bond or “—O—” bridge; or

R^{16} and R^{18} taken together form a bond when n is 1; or

R^{16} and R^{19} taken together form a bond when n is 0;

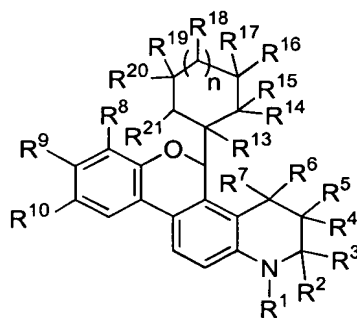
R^{21} is hydrogen; or

R^{21} and R^{20} taken together form a bond;

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

45. (New) A compound of the formula:



(I)

wherein:

R^1 is selected from the group of hydrogen, $\text{C}_1\text{--C}_4$ alkyl, $\text{C}_1\text{--C}_4$ haloalkyl, $\text{C}_1\text{--C}_4$ heteroalkyl, COR^{11} , CO_2R^{11} , SO_2R^{11} , and $\text{CONR}^{11}\text{R}^{12}$;

R^2 and R^3 each independently is selected from the group of hydrogen, $\text{C}_1\text{--C}_6$ alkyl, and $\text{C}_1\text{--C}_6$ haloalkyl; or

R^2 and R^3 taken together form a cycloalkyl ring of from three to twelve carbons;

R^4 through R^7 each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR^{11} , C_1-C_4 alkyl, C_1-C_4 haloalkyl, and C_1-C_4 heteroalkyl; or

R^5 and R^7 taken together form a bond; or

R^6 and R^7 taken together are selected from the group of methyldiene, mono-substituted methyldiene, di-substituted methyldiene and carbonyl;

R^8 through R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, I, NO_2 , CN, OR^{11} , $NR^{11}R^{12}$, SR^{11} , COR^{11} , CO_2R^{11} , $CONR^{11}R^{12}$, C_1-C_8 alkyl, C_1-C_8 heteroalkyl, C_1-C_8 haloalkyl, allyl, C_2-C_8 alkenyl and C_2-C_8 alkynyl;

R^{11} and R^{12} each is independently selected from the group of hydrogen, C_1-C_4 alkyl, C_1-C_4 heteroalkyl, and C_1-C_4 haloalkyl;

R^{13} is hydrogen; or

R^{13} and R^{14} taken together form a bond;

R^{14} through R^{20} each independently is selected from the group of hydrogen, F, Cl, Br, OR^{11} , C_1-C_4 alkyl, C_1-C_4 haloalkyl, and C_1-C_4 heteroalkyl; or

R^{14} and R^{15} taken together are selected from the group of methyldiene, carbonyl and thiocarbonyl; or

R^{16} and R^{17} taken together are selected from the group of methyldiene, mono-substituted methyldiene, di-substituted methyldiene, carbonyl and thiocarbonyl; or

R^{14} and R^{16} taken together form a bond or "—O—" bridge;

R^{16} and R^{19} taken together form a bond when n is 0;

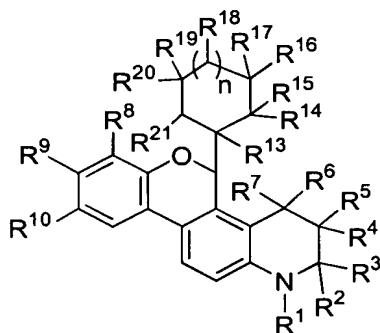
R^{21} is hydrogen; or

R^{21} and R^{20} taken together form a bond;

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

46. (New) A compound of the formula:



(1)

wherein:

R¹ is selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ haloalkyl, C₁–C₄ heteroalkyl, COR¹¹, CO₂R¹¹, SO₂R¹¹, and CONR¹¹R¹²;

R² and R³ each independently is selected from the group of hydrogen, C₁–C₆ alkyl, and C₁–C₆ haloalkyl; or

R² and R³ taken together form a cycloalkyl ring of from three to twelve carbons;

R⁴ through R⁷ each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

R^5 and R^7 taken together form a bond; or

R⁶ and R⁷ taken together are selected from the group of methyldiene, mono-substituted methyldiene, di-substituted methyldiene and carbonyl;

R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, I, NO₂, CN, OR¹¹, NR¹¹R¹², SR¹¹, COR¹¹, CO₂R¹¹, CONR¹¹R¹², C₁–C₈ alkyl, C₁–C₈ heteroalkyl, C₁–C₈ haloalkyl, allyl, C₂–C₈ alkenyl and C₂–C₈ alkynyl;

R¹¹ and R¹² each is independently selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ heteroalkyl, and C₁–C₄ haloalkyl;

R^{13} is hydrogen; or

R^{13} and R^{14} taken together form a bond;

R¹⁴ through R²⁰ each independently is selected from the group of hydrogen, F, Cl, Br, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

R¹⁴ and R¹⁵ taken together are selected from the group of methyldiene, carbonyl and thiocarbonyl; or

R¹⁶ and R¹⁷ taken together are selected from the group of methyldiene, mono-substituted methyldiene, di-substituted methyldiene, carbonyl and thiocarbonyl; or

R¹⁴ and R¹⁶ taken together form a bond or “—O—” bridge; or

R¹⁶ and R¹⁸ taken together form a bond when n is 1; or

R¹⁶ and R¹⁹ taken together form a bond when n is 0;

R²¹ is hydrogen;

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

47. (New) A pharmaceutical composition, comprising a pharmaceutically acceptable carrier and a compound of any one of claims 44-46.